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## **SECTION 800**

### **WORK ZONE TRAFFIC CONTROL**

#### **801 GENERAL**

Traffic control shall conform to the ordinances and regulations of the City of Colorado Springs and in particular to Section 22-1-315 of the City Code, "Work Zone Traffic Control".

Construction signing and marking shall conform to the Manual of Uniform Traffic Control Devices for Streets and Highways, U.S. Department of Transportation, latest edition and revisions thereto, City of Colorado Springs Supplement to MUTCD for Traffic Control for Street Construction Utility Work and Maintenance Operations and the State of Colorado Department of Highways Standard Specifications for Road and Bridge Construction (latest edition), Section 614, "Traffic Control Devices", and Section 713, "Traffic Control Materials".

#### **802 SCOPE**

This work shall consist of furnishing and maintaining in place all barricades, warning signs, lights, and other safety devices required to protect the work, divert traffic, and warn pedestrians of open excavations, unfilled trenches, and other areas or conditions which might be hazardous or dangerous during daylight or darkness.

Detours shall be maintained throughout the period of construction in such a manner as to provide the least amount of disruption to normal traffic flow.

The Contractor shall strictly adhere to all time limits and other restrictions as specified by the City Traffic Engineering Division in the approval of the Traffic Control Plan.

#### **803 MATERIALS**

All Traffic Control Devices shall conform to Section 614, "Traffic Control Devices", and Section 713, "Traffic Control Materials", of the State of Colorado Department of Highways Standard Specification for Road and Bridge Construction (latest edition), unless variations are authorized by the City.

### **803.01 Reflective Sheeting**

All signs, barricades, and cones shall be reflectorized as required by the Manual on Uniform Traffic Control Devices.

- A. The type of reflective sheeting shall comply with the following minimum requirements:
  - 1. On low speed streets with posted speed limits of 40 M.P.H. or lower, smooth surface enclosed lens Type II retroreflective sheeting shall be used.
  - 2. On high speed streets with posted speed limits over 40 M.P.H, high performance bead- encapsulated or microprisms Type IIA and Type III retroreflective sheeting shall be used.
- B. In no case shall sheeting with a specific brightness value fall below the original requirement. Any sign, barricade, cone, etc. on which the reflective sheeting falls below the requirement shall be replaced at the Contractor's expense.

## **804 CONSTRUCTION STAGING**

The Engineer shall coordinate with the City Traffic Engineering Division to determine the site-specific staging and/or phasing requirements. The Contractor shall schedule the work in such a manner as to comply with the staging and/or phasing requirements contained in the contract documents.

## **805 CONSTRUCTION REQUIREMENTS**

### **805.01 General**

The Contractor shall maintain a twenty-four (24) hour, seven (7) days a week (including weekends and holidays) emergency service to remove, install, relocate, and maintain warning devices. The Contractor shall furnish to the City the name and telephone number of the Traffic Control Supervisor responsible for emergency service.

In the event the Traffic Control Supervisor does not respond within two (2) hours, or the City deems it necessary to call out other forces to accomplish emergency services, the Contractor will be held responsible for the cost of such emergency services, without reimbursement.

## **805.02 Existing Traffic Control Devices**

Prior to commencing work in the vicinity of any existing Traffic Control Devices, the Contractor shall coordinate with the City Traffic Engineering Division in the removal of devices which need to be removed or relocated to accommodate the work. The Contractor shall store all devices in a safe and secure manner throughout the period of work and assume responsibility for temporary devices if necessary.

Upon completion of the work in the vicinity of the previously removed Traffic Control Devices, the Contractor shall reinstall the devices as directed by the City Traffic Engineering Division. Any Traffic Control Devices damaged during removal, relocation storage, or reinstallation shall be repaired or replaced by the Contractor at their expense.

The removal relocations, storage, and reinstallation of existing devices shall not be paid for separately, but shall be considered as incidental to the project.

## **805.03 Traffic Control Plans**

- A. Submittal. The Contractor shall submit Traffic Control Plans in drawing form for the review and approval of the City Traffic Engineering Division. A Traffic Control Plan Submittal Form shall accompany each submittal. The Submittal Form shall be completed in its entirety (blank spaces, "same", and "ditto" shall not be accepted). The Traffic Control Supervisor shall provide a night telephone number to assure twenty-four (24) hour availability.

Traffic Control Plans for street closure and major detours of local and/or through traffic shall be submitted to the City Traffic Engineering Division at least ten (10) calendar days in advance of the closure or detouring.

Traffic Control Plans not involving closures or major detours shall be submitted a minimum of seventy-two (72) hours (three City business days) prior to implementation.

No phase of construction shall commence until the Traffic Control Plan has been approved. Approved Traffic Control Plans shall not be revised without prior approval of the City Traffic Engineering Division. Revisions shall be submitted in accordance with the above requirements.

- B. Format. Traffic Control Plans shall include detailed signing, barricading, and traffic detouring information for each phase or stage of construction including as a minimum: type and number of devices, working hours, number and location of flaggers, and time restrictions, if any.

- C. Copies of Approved Plan. Copies of the approved Traffic Control Plans shall be available on-site at all times; the Contractor shall provide copies to the Project Engineer, Traffic Engineer, and Project Inspector.

#### **805.04 Traffic Control Supervisor**

- A. Qualifications. The Contractor shall designate a Traffic Control Supervisor who shall perform the Traffic Control Management and shall be responsible for maintaining all Traffic Control Devices in compliance with the approved Traffic Control Plan.

The Traffic Control Supervisor shall be either an employee of the Contractor, other than the Superintendent, or an employee of a firm which has a subcontract for the overall Traffic Control Management for the project. The Traffic Control Supervisor shall be currently certified by the American Traffic Safety Services Association or Colorado Contractors Association as a Worksite Traffic Control Supervisor.

The name and qualifications, including a copy of the American Traffic Safety Services Association certification, of the Traffic Control Supervisor shall be submitted to the Engineer and the Engineer's approval shall be obtained prior to commencing construction. The Traffic Control Supervisor shall have an up-to-date copy of part VI of the Manual of Uniform Traffic Control Devices (and revisions thereof) and City of Colorado Springs Supplement to MUTCD for Traffic Control for Construction, Utility Work and Maintenance Operations available on-site at all times.

- B. Duties. The Traffic Control Supervisor duties shall include, but not be limited to:
1. Preparing, revising, and submitting the Traffic Control Plan as required.
  2. Direct supervision of project flaggers.
  3. Coordinating all Traffic Control operations, including those of subcontractors and suppliers.
  4. Coordinating project activities with appropriate police and fire control agencies.
  5. Maintaining a project Traffic Control diary which shall become a part of the Division's project records.
  6. Inspecting Traffic Control Devices on every calendar day that Traffic Control Devices are in use. (By the Traffic Control Supervisor or his approved representative).
  7. Insuring that Traffic Control Devices are functioning as required.

8. Overseeing all requirements covered by the plans and specifications which contribute to the convenience, safety and orderly movement of traffic.
- C. Working Hours. The Traffic Control Supervisor shall be available on a twenty-four (24) hour per day basis. The Contractor shall make arrangements so that the Traffic Control Supervisor, or his representative as approved by the City, will be available on every working day and upon the request of the Engineer.

#### **805.05      Flaggers/Off-Duty Police Officers**

The City Traffic Engineering Division may require flaggers or off-duty police officers for traffic direction.

- A. Qualifications
  1. All flagging personnel shall have completed the Colorado Department of Transportation minimum training requirements for flaggers within two (2) years prior to beginning the project. Flaggers will be required to have the Colorado Department of Transportation certification card upon their person when engaged in any flagging operation.
  2. Off-duty police officers shall be active members of the City of Colorado Springs Police Department. The Contractor shall be responsible for contacting the Police Department and making all arrangements for off-duty officers.

#### **805.06      Implementation**

- A. Detours. Unless otherwise specified in the contract documents, the construction, signing, striping, maintenance, and removal of all detours shall be by the Contractor at his expense.
- B. Temporary Surface. Before directing vehicular traffic onto an area, the Contractor shall install a temporary asphalt surface and pavement markings. All conflicting pavement markings shall be completely removed by grinding before the street is opened to traffic. Unless otherwise specified in the contract documents, the removal of conflicting pavement markings, the temporary asphalt surfaces, and the temporary pavement markings shall be installed by the Contractor at his expense.
- C. Work Limits. The Contractor shall not exceed the work limits specified for each phase or stage of construction, unless approval to do so is granted by the Engineer and the City Traffic Engineering Division. Any work

beyond the limits of public right-of-way and/or easements shall be approved in writing by the property owner and approved by the Engineer and the City Traffic Engineering Division.

Should the Contractor fail to maintain the work within the specified limits, the Engineer or the City Traffic Engineering Division shall direct that all operations be suspended until the work is returned to the specified limits.

Any costs incurred by the Contractor due to such suspension shall be at the Contractor's expense and no additional compensation or time extensions shall be made therefor.

- D. Public Notification. The Contractor shall provide updated information to the Engineer on a daily basis, and if required by the approved Traffic Control Plan, shall also provide news release and/or public contact.

#### **805.07 Pedestrian Traffic Control**

Throughout construction, the Contractor shall maintain pedestrian walkways along both sides of all public streets unless otherwise approved by the City Traffic Engineering Division. Said pedestrian walkways shall be a minimum of four (4) feet wide and shall be safely delineated. Pedestrian walkways shall be surfaced in a manner approved by the Engineer and shall be safely maintained and kept clear of all debris and obstructions (including tools, equipment, and materials). Unless otherwise specified in the contract documents, pedestrian walkways shall be supplied and maintained by the Contractor at his expense.

#### **805.08 Access to Adjacent Properties**

The Contractor shall notify all affected residents and/or property owners a minimum of 48-hours prior to restricting normal access from public streets to adjacent properties. The Contractor shall inform each resident and/or property owner of the nature of the access restriction, the approximate duration of the restriction, and the best alternate access route for that particular property. Any closure of access to or from adjacent property shall be submitted to the Engineer and approved prior to implementation.

#### **805.09 Re-Opening to Traffic**

Before reopening any portion of the public streets to vehicular traffic, the Contractor shall restore the pavement as required by the Plans and Specifications and in accordance with Section 19-5-2 of the City Code, "Excavations", shall reset all signs, and shall restore all pavement markings. If necessary, a temporary asphalt concrete surface and temporary pavement markings shall be installed by the Contractor at his expense.

Any signs damaged as a result of the Contractor's work shall be repaired or replaced to the requirements of the City Traffic Engineering Division; said repair or replacement shall be at the Contractor's expense.

## **806 MEASUREMENT AND PAYMENT**

Work performed under this section shall be paid for by one of the following methods as specified in the contract documents:

### **806.01 Individual Bid Items**

Payment to the Contractor shall be made at the rates shown in the bid schedule and shall be based on the records maintained by the Engineer. The Engineer shall maintain a daily record of the devices in place and in compliance with approved Traffic Control Plans. No payment shall be made for devices or personnel in excess of or not in compliance with the requirements of the approved Traffic Control Plans.

- A. Traffic Control Devices. Traffic Control Devices shall be paid for as a Contract Allowance item. Unit prices shall be in accordance with the Traffic Control Devices Schedule provided by the City and contained in the contract documents and shall include all work stated in Section 614 of the State of Colorado Department of Highways Standard Specifications for Road and Bridge Construction (latest edition). The Contract Allowance shall be a preset amount in the bid schedule as determined by the City.
- B. Traffic Control Supervisor. Payment for the Traffic Control Supervisor shall be at the unit price per day as shown in the bid schedule for the number of authorized twenty-four (24) hour days performed by the Traffic Control Supervisor. An authorized twenty-four (24) hour day shall be any day, or portion of day, authorized by the Engineer that construction operation would require a Traffic Control Supervisor to supervise the setting, resetting, or changing of the Traffic Control Devices. Days not worked due to inclement weather, work suspension, "on call" time, and any other time not worked and project inspections on days not requiring setting, resetting, or changing of the Traffic Control Devices shall not be considered authorized twenty-four (24) hour days but shall be considered as incidental to the project. Unless otherwise approved by the Engineer, weekends and holidays shall be considered non-work days.
- C. Flaggers. Payment for flaggers shall be at the unit price per hour shown in the bid schedule for the number of hours that flagging is actually used as authorized by the Engineer. Hours of flagging in excess of those authorized shall be at the Contractor's expense.



- D. Off-Duty Police Officers. Payment for off-duty police officers shall be at a direct cost to the City with invoices from the Police Department being sent to the Contractor who shall forward same directly to the City for payment.

#### **806.02 Lump Sum Bid Item**

When Traffic Control is shown as a Lump Sum item in the bid schedule, it shall be the responsibility of the Contractor to determine the Traffic Control needs for the project, including all devices and personnel, and to develop the bid amount accordingly. Payment shall be made as a percentage of the Traffic Control Lump Sum amount equal to the percent-complete-to-date of the balance of the total contract amount less any previous payments for Traffic Control. In no case shall the total amount paid for Traffic Control exceed the Lump Sum shown in the bid schedule.

#### **806.03 Incidental to Project**

When Traffic Control is not shown in the bid schedule as a separate item, the work shall not be paid for separately, but will be considered as incidental to the project.

### **807 PAYMENT REDUCTION FOR NON-COMPLIANCE**

Any action on the part of the Contractor which results in non-compliance with the approved Traffic Control Plan and/or the requirements of this section shall be cause for reduction in payment. Non-compliance shall include failure to have the Traffic Control Plan on the job site at all times when in effect and failure to be able to produce the Traffic Control Plan upon request by any employee of the City.

The payment shall be reduced by the following methods:

#### **807.01 Individual Bid Items**

No payment shall be made for either devices or personnel for days when the Contractor is not in compliance with the approved Traffic Control Plan and/or the requirements of this section, days worked beyond the approved completion date of the project, or for additional use of devices or personnel resulting from the Contractor's failure to pursue the work in a timely manner.

**807.02          Lump Sum Bid Item**

The payment shall be reduced by an amount equal to the Traffic Control Lump Sum amount divided by the total number of contract days as stated in the bid documents multiplied by the number of days when the Contractor is not in compliance with the approved Traffic Control Plan and/or the requirements of this section. In no case shall the amount of the reduction in payment per day be less than one (1) percent of the total contract amount.

**807.03          Incidental to Project**

The payment shall be reduced by an amount equal to one (1) percent of the total contract amount for each day that the Contractor is not in compliance with the approved Traffic Control Plan and/or the requirements of this section.